STATE OF CALIFORNIA

Energy Resources Conservation
And Development Commission

In the Matter of:	)	Docket No. 01-AFC-21
Application for Certification for Florida Power and Light's TESLA POWER PROJECT	)	**Second Addendum to Staff's Final Staff Assessment**

The Energy Commission staff hereby files this second addendum to the Final Staff Assessment (FSA). The following document includes additional testimony and/or clarifications in the following subject areas:

- Air Quality
- Biological Resources (including letter)
- Hazardous Materials
- Land Use
- Public Health
- Socioeconomics
- Traffic and Transportation (including revised section)
- Power Plant Efficiency
- Power Plant Reliability
- Transmission System Engineering Evaluation
- Worker Safety and Fire Protection and;
- Alternatives

The attached testimony should be incorporated as additions and clarifications to both the FSA, and the first addendum to the FSA, Reclaimed Water Supply Pipeline. The information provided

in this second addendum is intended to address issues and concerns raised during the pre-hearing conference on July 30, 2003.

Respectfully submitted,

Dated: August 29, 2003

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TESLA FINAL STAFF ASSEMENT
ADDENDUM #2
PREHEARING CONFERENCE
RESPONSE

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PROJECT DESCRIPTION

Below is a correction to the Project Description section of the FSA

Page 3-1 – **Third Heading**, should read:

Project Description and ~~Liner~~ Linear Facilities

AIR QUALITY

This supplemental testimony provides responses to questions or issues raised at the Prehearing Conference, July 30, 2003.

1. **Question:** Has the Bay Area Air Quality Management District provided a certification that the offset package complies with Public Resources Code section 25523(d)(2)?

Response: No such certification has been issued by the BAAQMD for the Tesla project. Since the Prehearing Conference, staff has requested a separate statement from the District for compliance with this specific statute. Prior to that time, staff analyzed the offset package as it is in the FDOC from March 2003, which includes one emission reduction credit that has not yet been issued.

2. **Question:** How does staff reconcile the differences between the two tables of the Final Staff Assessment showing the ERC Acquisitions (AIR QUALITY Table 17) and the effectiveness of the ERC Acquisitions (AIR QUALITY Table 19)? And do these tables show the total ERC package under the BAAQMD requirements?

Response: Staff developed these tables from the offset package in the FDOC. The ERCs shown in these two tables are sufficient to satisfy the BAAQMD requirements and are therefore the total ERC package identified by the BAAQMD.

The differences between the two tables shows staff's first step in estimating the ability of these ERCs to mitigate project emissions. Staff believes that the ability of the ERCs to mitigate project emissions depends partially on the proximity of the offset to the Tesla site, and that the benefit experienced in the San Joaquin Valley of an offset occurring in the Bay Area diminishes with distance. Staff's first step therefore, is to assign an effectiveness ratio or factor to each ERC. The SJVAPCD also believes in this concept as evidenced by the fifth "recital" in the Tesla Mitigation Agreement and the second step of their calculation, which shows how the ERCs are discounted. The factors applied by staff to the BAAQMD credits are shown in Table 19, and they are similar, but not identical to those applied by the SJVAPCD in Table 2 of Exhibit A-2 in their Mitigation Agreement.

Staff selected a different methodology than the SJVAPCD when faced with the task of determining the effectiveness of the BAAQMD ERCs. Staff first determined the full-year

difference between project emissions and offsets in Tables 17 and 19 of the FSA, then divided the residual impact into seasons, shown in Table 20 of the FSA. The SJVAPCD instead opted to determine the seasonal effect of the project's emissions in Table 1 of the Mitigation Agreement, then the full-year benefit of the offsets in their Table 2, and calculated the residual impact based on that difference. Because the SJVAPCD calculation does not divide the benefit of the offsets into seasons, staff believes that there may be an error in the SJVAPCD calculation that overstates the benefit of the BAAQMD ERCs.

3. **Question:** How does staff treat the emission reduction provided by road paving, if this type of reduction is not recommended by CARB?

Response: Each local air pollution district has discretion over creating ERCs, and the BAAQMD indicates in the FDOC that new dust control measures at the Altamont Landfill will eventually lead to a new ERC. Staff raised several concerns during the BAAQMD public comment period for the ERC (pp. 4.1-41 through 43 of the FSA). Because it appears that BAAQMD intends to issue the ERC, staff considers the ERC to be part of the overall mitigation package. Staff continues to believe that it would be only partially effective in mitigating the project's combustion-related particulate matter impacts. In AIR QUALITY Table 19 of the FSA, this ERC is discounted because staff believes it would only provide a small benefit.

4. **Question:** Has there been a CEQA analysis of the Mitigation Agreement between the Applicant and the SJVAPCD?

Response: Staff is not aware of any CEQA analysis of the Mitigation Agreement conducted by SJVAPCD, and staff and the public were not provided the opportunity to comment on the agreement before it was established. Staff believes that although no CEQA analysis has been provided by the SJVAPCD for the Mitigation Agreement, the Mitigation Agreement is a component of the overall mitigation package for this project and is therefore incorporated into the CEQA analysis conducted by Energy Commission Staff. Staff determined that mitigation beyond that provided by the Mitigation Agreement would be appropriate and recommended it in the FSA. Condition of Certification AQ-SC7 would ensure that emission reductions provided by the Mitigation Agreement, or any other approach, would be for the life of the project.

5. **Question:** How did staff determine that a seasonal analysis of project impacts should be used to develop mitigation?

Response: Staff's proposed mitigation, in Condition of Certification AQ-SC7, was developed on a seasonal basis (by quarter) especially for this project. Usually staff considers full-year impacts when developing mitigation. In the San Joaquin Valley, air pollution problems are highly seasonal. This is a combined function of the meteorology being seasonal and the seasonal activity in the valley, which depends largely on agriculture. As such, the SJVAPCD manages its source inventory by season and issues ERCs that are divided into quarters. As discussed above, the SJVAPCD developed its Mitigation Agreement by focusing on the project's seasonal effects. Staff conducted its analysis in terms of seasonal quarters in an effort to be consistent with the SJVAPCD's management approach.

6. **Question:** Are staff's Conditions of Certification AQ-SC6 and AQ-SC7 meant to work together, and can they be made more specific?

Response: Conditions AQ-SC6 and AQ-SC7 are linked because the quantity of emissions set forth in AQ-SC7 depends on a case-specific analysis of the BAAQMD ERCs shown in AQ-SC6. The first condition (AQ-SC6) reflects staff's need to illustrate the ERCs proposed by the applicant and identified by the BAAQMD in the FDOC. Staff's AQ-SC6 ensures that BAAQMD offset requirements are met to staff's satisfaction. Staff developed language to allow ERC substitutions because of other project applicants requesting flexibility. Staff's AQ-SC7 goes beyond the BAAQMD requirements, and incorporates the SJVAPCD Mitigation Agreement, to ensure that CEQA impacts are reduced to a level of insignificance.

Staff believes that some flexibility needs to be provided to the Applicant in providing the reductions required by AQ-SC7. Providing specific emission control strategies in AQ-SC7 could constrain the SJVAPCD and the Applicant in their ability to identify the needed reductions. Reporting requirements in the condition would require the Applicant to demonstrate that sufficient reductions have been achieved.

BIOLOGICAL RESOURCES

This supplemental testimony provides responses to questions or issues raised at the Prehearing Conference, July 30, 2003.

During the PHC Mr. Sarvey, an intervenor expressed concern regarding the proposed Biological Mitigation described in the FSA. Staff will be prepared to address these concerns at the Evidentiary Hearings. On September 18, 2003 Susan Jones of the USFWS will provide testimony on the USFWS Biological Opinion publication time frame, federal Endangered Species Act, project impacts and compliance. The USFWS has indicated that the applicants proposed water supply may present an adverse impact to the Buena Vista Shrew that has not been addressed. Please see attached letter **Appendix A**.

HAZARDOUS MATERIALS

This supplemental testimony provides responses to questions or issues raised at the Prehearing Conference, July 30, 2003.

1. **Question:** Should there be any mitigation to minimize impacts on the fire districts that the hazardous materials travel through?

Response: Hazardous materials for all power plants including Tesla travel through many jurisdictions. The CEC has never required mitigation to all these jurisdictions because: Hazardous materials accidents on Interstates, US highways and State routes are coordinated by the CHP and county sheriffs. CalTrans responds to hazmat releases on interstates and major highways along with multiple fire jurisdictions through mutual aid. Fire departments have limited roles in that they are trained as first-responders with responsibility for isolation and/or containment, but containment is provided only if the substance is known. Fire-fighters are not equipped with chemical-

resistant suits or with testing equipment. A hazmat team has the responsibility for identification, containment, and coordination of cleanup. Cleanup is provided by a contract vendor. The vast majority of costs involve clean-up which are covered by CalTrans or the HazMat vendor. The power plant owner is never responsible for clean up/mitigation because the hazardous materials don't belong to the power plant until receipt. Cost recovery can be obtained from the vendor, if appropriate. Finally, in order to require mitigation, CEQA requires that a significant impact be found. Because hazardous materials spills on the way to CEC certified power plants occur so infrequently, staff has made a finding of insignificant impact. Therefore, no mitigation is required.

2. **Question:** A citizen stated that some special equipment and training may be necessary to deal with fires at the Tesla Power Plant because of the hazardous materials.

Response: Staff has addressed this issue under Worker Safety/Fire Protection analysis of the FSA. Additionally a panel of Alameda County Fire Department personnel will be available to discuss fire response and hazmat response at the September 10th hearing.

3. **Question:** The table in the appendix at the end of the section is not legible please provide a legible Figure 1 table.

Response: See the following Table Hazardous Materials Figure 1, Anticipated Hazardous Materials Use at the Tesla Power Plant from the FSA, page 4.4-28.

Hazardous Materials Figure 1
Anticipated Hazardous Materials Use at the Tesla Power Plant

Material	CAS No. or Chemical Makeup)	Location/ Application	Hazardous Characteristics[1]	Maximum Quantity On Site	Regulatory Thresholds (lb.)			
					CalARP	Federal RQ[2]	Fed. TPQ[3]	Federal TQ[4]
Alkaline Phosphate Solution (KOH)	1310-58-3	Cooling tower scale control	*Health: chronic* *Physical: fire*	400 gallons (30 days storage)	-	-	-	-
Alkaline Phosphate Solution (NaOH)	1310-73-2	Boiler feedwater scale control	*Health: acute, chronic Physical: none*	2 x 400 gallons (60 days storage)	-	-	-	-
Ammonium Bifluoride	1341-49-7	HRSG chemical cleaning	*Health: acute, chronic Physical: reactive*	Temporary (by contractor)	-	100	-	-
Aqueous Ammonia 19.0 wt%	7664-41-7	NO_X Emissions Control	*Health:* acute, chronic *Physical:* fire, pressure	50,000 gallons (21 days storage)	500	100	500	10,000
Carbohydrazide (oxygen scavenger - Eliminox)	497-18-7	Boiler feedwater dissolved oxygen control	Health: acute, chronic Physical: none	2 x 400 gallons (60 days storage)	-	5,000	-	-
Carbon Dioxide (gas)	124-38-9	Generator purging	*Health: acute, chronic Physical: pressure*	50,400 scf	-	-	-	-
Carbon Dioxide (liquid)	124-38-9	Fire suppression	*Health: acute, chronic Physical: pressure*	48,000 lb	-	-	-	-

Hazardous Materials Figure 1
Anticipated Hazardous Materials Use at the Tesla Power Plant

Material	CAS No. or Chemical Makeup)	Location/ Application	Hazardous Characteristics[1]	Maximum Quantity On Site	Regulatory Thresholds (lb.)			
					CalARP	Federal RQ[2]	Fed. TPQ[3]	Federal TQ[4]
Citric Acid	77-92-9	HRSG chemical cleaning	*Health: acute, chronic Physical: none*	Temporary (by contractor)	-	-	-	-
Diesel Fuel Oil	68476-34-6	Diesel firewater pump motor, Emergency diesel generator	*Health: acute, chronic Physical: fire*	280 gallons	-	-	-	-
EDTA Chelant	60-00-4	HRSG chemical cleaning	*Health: acute, chronic Physical: reactive*	Temporary (by contractor)	-	100	-	-
Hydrochloric Acid	7647-01-0	HRSG chemical cleaning	*Health: acute, chronic Physical: none*	Temporary (by contractor)	-	5,000	-	15,000
Hydrogen	1333-74-0	Generator cooling	*Health: acute Physical: fire, pressure, reactive*	24,000 scf	-	-	-	10,000
Lubricating Oil	None	Mechanical Equipment	*Health: acute, chronic Physical: fire*	24,800 gall in the equipment and pipelines	-	-	-	-
Mineral Insulating Oil	None	Electrical Transformers	*Health: acute, chronic Physical: fire*	110,000 gall in the equipment and pipelines	-	-	-	-
Aqueous Ammonia 19 wt.%	7664-41-7	Condensate corrosion control	*Health: acute, chronic Physical: fire*	2 x 250 gallons (30 days storage)	500	100	500	10,000
Natural Gas	None	Gas turbine generator and duct burner fuel	*Health: acute Physical: fire, pressure*	2,600 lb in the equipment and pipelines	-	-	-	-

Hazardous Materials Figure 1
Anticipated Hazardous Materials Use at the Tesla Power Plant

Material	CAS No. or Chemical Makeup)	Location/ Application	Hazardous Characteristics[1]	Maximum Quantity On Site	Regulatory Thresholds (lb.)			
					CalARP	Federal RQ[2]	Fed. TPQ[3]	Federal TQ[4]
Nitrogen	7727-37-9	Blanketing	*Health: none Physical: pressure*	400 lb	-	-	-	-
Propylene Glycol	57-55-6	Antifreeze for closed cooling water system	*Health: acute, chronic Physical: fire*	50 gallons in the equipment and pipelines	-	-	-	-
Sodium Hydroxide 50 wt%	1310-73-2	Crystallizer alkalinity adjustment	*Health: acute, chronic Physical: reactive*	400 gallons (180 days storage)	-	-	1,000	-
Sodium Hypochlorite Solution 12.5 wt%	7681-52-9	Cooling tower oxidizer for bio fouling control	*Health:* acute, chronic *Physical:* none	5,000 gall (30 days storage)	-	-	100	-
Sodium Nitrite	7632-00-0	HRSG chemical cleaning	*Health: acute Physical: none*	Temporary (by contractor)	-	-	100	-
Sulfuric Acid 29.5 wt%	7664-93-9	Station and gas turbine batteries	*Health: acute, chronic Physical: reactive*	3,000 gallons	1,000	1,000	1,000	-
Sulfuric Acid 93.0 wt%	7664-93-9	Cooling tower pH control, RO feed water pH control, Evaporator feed water pH adjustment	*Health:* acute, chronic *Physical:* reactive	10,000 gallons (30 days storage)	1,000	1,000	1,000	-

[1] Hazard categories are defined by 40 CFR 370.2. Health hazards include acute (immediate) and chronic (delayed). Physical categories include fires, sudden release of pressure, and reactive.

[2] RQ = Reportable Quantity CERCLA

[3] TPQ = Threshold Planning Quantity AFC Table 3.4-17

[4] TQ = Threshold Quantity for

LAND USE

This supplemental testimony provides clarification with additional language to the Land Use section of the FSA in underline.

1. **Question:** There are several documents referred to in Land Use FSA section, several letters that we should have copies of in the list of exhibits.

Response: Staff has provided **Appendix B** to this document; a package of TPP letters listed below and referenced in the Land Use section of the FSA.

In chronological order those letters are:

- 2/4/02 California Energy Commission (Haussler) to Alameda County;
- 4/30/02 Alameda County (Martinelli) to California Energy Commission;
- 5/20/02 Grattan & Galati (Galati) to Alameda County;
- 7/30/02 Grattan & Galati (Galati) to California Energy Commission (cover letter for attached 7/26/02 letter to Alameda County);
- 7/30/02 Grattan & Galati (Galati) to Alameda County;
- 1/24/03 California Department of Conservation (O'Bryant) to Alameda County;
- 1/27/03 Stroup et al (Bakerink) to California Department of Conservation; and
- 2/6/03 Alameda County Board of Supervisors Resolution Tentatively Canceling Land Conservation Contract 72-26428

2. **Question:** Is there a document that actually states that this is a final cancellation?

Response: Please refer to the 2/6/03 Alameda County Board of Supervisors Resolution Tentatively Canceling Land Conservation Contract 72-26428. To date no final cancellation has been filed with the County.

3. **Question**: Also in land use the proposed condition LAND-7 talks about an agricultural land conservation easement plan. It is not clear what that is. It's not specific in the text of the FSA, and the condition is rather vague.

Response: Staff has rewritten for further clarification LAND-7 below.

LAND-7 Prior to the start of construction the project owner shall submit an agricultural land conservation easement plan subject to review by Alameda County, and the approval of the Compliance Project Manager (CPM). The intent and approach of the easement plan is to purchase land development rights to establish a permanent agricultural land preserve, which would mitigate for the loss of agricultural land. The plan must describe the long-term management including funding, endowment, maintenance, and monitoring. The plan shall explain the applicant's off-site mitigation involving one or both of the following: 1) the purchase of a 100-acre agricultural conservation easement adjacent to the TPP

plant site which would then be given to Alameda County for agricultural land preservation purposes; or 2) the applicant's payment of monies to a County of Alameda or other recognized land trust fund used for the purpose of purchasing agricultural mitigation land or easements,

Verification: Sixty (60) days prior to the start of construction, the project owner shall provide the CPM with the final agricultural conservation easement plan, including a copy of any final agreement signed between the project owner and the County of Alameda, American Farmland Trust or other agency or non-profit organization that is publicly recognized and authorized to hold agricultural conservation easements for approval by the CPM.

The project owner shall provide to the CPM, a copy of the executed agricultural conservation easements and/or receipt for the payment of monies to an agricultural land mitigation trust account to demonstrate the applicant's fulfillment of their mitigation requirement.

4. **Question:** Is Appendix A in the FSA, p.4.5-26, also part of TPP land use? Are these conditional use permit findings from Alameda County for the East Altamont Energy Center similar to those staff expects the county to find for the TPP? I don't know what this is.

Response: On page 4.5-14 of the FSA, staff explains that Appendix A findings for the East Altamont Project would be findings that we would expect too receive from Alameda County for TPP. On August 20, 2003, staff requested a revision of these findings which would be specific to the TPP, from Mr. James Sorenson, Director, Alameda County Community Development Agency.

SOCIOECONOMICS

This supplemental testimony provides responses to questions or issues raised at the Prehearing Conference, July 30, 2003. At the PHC the following request was made by the committee for clarification.

1. **Question:** What are the project school impact fees and other project-related tax benefits.

Response: As part of project development the applicant would contribute school impact fees totaling approximately $2,970 (or $0.33 per square foot of development). SB 50 states that public agencies may not impose other financial requirements to offset the cost for school facilities.

The capital cost of the TPP facility would be about $600-700 million. Sales tax to be paid by project owner on estimated local purchases is approximately $500,000 annually.

AB 81 (Migden), which was approved by the Senate and Assembly in 2002, changed the method by which the TPP property and other large power plant properties are taxed by shifting the responsibility for property tax assessment of large power plants from the County Assessor to the State Board of Equalization (BOE), in essence making it a "state assessed property." AB 81 also requires annual reassessment at fair market

value, and provides that the property taxes collected be distributed exclusively to the taxing jurisdictions within the Tax Rate Area in which the facility is located. (A "Tax Rate Area" is a grouping of properties within a county wherein each parcel is subject to the taxing powers of the same combination of taxing agencies). While AB 81 could substantially increase total property tax revenue from the TPP over its lifetime, local governments, schools and other special districts in the TPP Tax Rate Area would receive the same percentage of revenues that they currently receive from property that is assessed by the County Assessor.

TRAFFIC AND TRANSPORTATION

Energy Commission staff offers the following responses to the Prehearing Conference comments regarding the FSA testimony on Traffic and Transportation. Staff has revised the Traffic and Transportation Section of the FSA and attached it as **Appendix C** to this document. The changes made to the Traffic and Transportation Appendix C document are under lined and intended to provide additional clarification and guidance for the TPP.

1. **Question:** Where in the FSA is the condition that describes the route for delivery of hazardous materials?

Response: Staff has revised Condition of Certification TRANS-4 pg.4.9-19. to insure that an appropriate route is identified and approved by the CPM prior to operation.

2. **Question:** Should there be specific items regarding the traffic control plan in Condition of Certification TRANS-1.

Response: Staff has revised Condition of Certification TRANS-1 pg.4.9-18. Staff identified additional agencies the project owner will be required to contact in the development of the plan and revised the list of actions that the project owner must comply with.

3. **Question:** Should the word applicant should be replaced with project owner.

Response: Staff has made the changes in all references.

4. **Question:** Should Condition of Certification TRANS-4 should say that all federal and state regulations regarding the transportation of hazardous materials will be complied with.

Response: Staff has revised Condition of Certification TRANS-4 page 4.9-19. the condition makes the required statements and requires the project owner to provide verification of compliance of those regulations.

5. **Question:** Should the verification for Condition of Certification TRANS-4 state that the CPM will receive copies of permits and licenses with trucking companies that transport hazardous waste.

Response: Staff has revised Condition of Certification TRANS-4 pg. 4.9-19. The verification requires proof of compliance and submittal of reports.

6. **Question:** Should Condition of Certification TRANS-5 have language in the verification that should be in the condition. The condition should say what the policy is related to, project-related construction parking.

Response: Staff has revised Condition of Certification TRANS-5 pg. 4.9-19. The condition now clarifies the parking policy and compliance expectations.

7. **Question:** There is no language in Condition of Certification TRANS-6 that says who will fund the installation of the turn lanes required for the project.

Response: Staff has revised Condition of Certification TRANS-6 pg. 4.9.20. The COC and verification outline the funding issues and construction responsibilities.

8. **Question:** A timeline needs to be put into the verification for Condition of Certification TRANS-7.

Response: Staff has revised Condition of Certification TRANS-7 Verification pg. 4.9-20 to reflect a time requirement.

9. **Question:** Condition of Certification TRANS-9 does not say what the project owner will do to deal with the temporary traffic signals required by the project, does not require review and approval by the CPM, and does not have a timeline.

Response: Staff has revised Condition of Certification TRANS-9 pg. 4.9-21. The COC now states the responsibilities of the project owner and time frames for the actions.

PUBLIC HEALTH

This supplemental testimony provides responses to questions or issues raised at the Prehearing Conference, July 30, 2003.

1. **Question:** Why is staff relying on emission factor data from the Ventura County Air Pollution Control District and not the Bay Area or the San Joaquin Air Pollution Control Districts?

Response: The Ventura County APCD maintains a list of emission factors that are recommended for different source categories. While a few of them might be based on source tests performed by that district, most are emission factors from other sources such as the U.S. EPA AP-42 handbook or the California Air Toxic Emission Factor (CATEF) database. According to the air toxics manager for the BAAQMD, many air districts use the Ventura factors because the Ventura APCD seems to keep the references updated more than most air districts, but there is nothing really unique about their factors, since they mostly reference other documents and sources. Many districts compile the latest factors on a case by case basis when they are working on a permit, which might not provide an applicant with as much certainty as would be desired. Thus, the Ventura factors are not something special to that district, but rather a useful compilation of factors from other widely used sources. Neither the BAAQMD or the SJAPCD has developed emission factors of their own.

2. **Question:** Could the testimony regarding cancer risk and acute and chronic health hazard indices be more specific and tell us where the locations are?

Response: Please see text below and Figures 5.15-3 from the AFC and 5.12-1 that staff has used to mark the points of maximum impact.

The point of maximum cancer risk would be located on the northeast side of the facility boundary, the location of the chronic hazard index would be located near the northeast facility boundary and the point of maximum acute hazard index would be located approximately 3 miles west southwest of the facility boundary. The land use designation at these sites is limited industrial. Existing land use at these sites is agricultural and grazing land. The nearest residences to the points of maximum Chronic HI and maximum cancer risk are located approximately 1 mile southeast of the points of maximum impact.

3. **Question:** The entire analysis of Public Health is based on staff's conditions of certification being met in terms of Air Quality. If we come to some compromise position on those conditions of certification of Air Quality, how would that affect Public Health?

Response: Although Air Quality and Public Health are intimately related, staff conducts separate analysis for the two technical areas. Air Quality addresses criteria pollutants and Public Health addresses non-criteria pollutants. The AQ analysis does not directly relate to staff's conclusions in public health. Rather, the AQ standards that form the basis for staff's AQ analysis are themselves health-based standards. Staff assumes that an area that is not in attainment for a standard has air that is not healthy to breathe and seeks to mitigate additional project-related emissions in that area. Staff agrees that if these impacts are not mitigated, there would be a health-related impact, however, that conclusion pertains only to Air Quality, not Public Health.

4. **Question:** An intervener has indicated that a community southwest of the Tesla site (on Mines Road) claims to have a cancer cluster (children and breast cancer) and asked if staff could look into this.

Response: Mines Road is located more than 11 miles distant from the Tesla site. Any community located on this road would be exposed to levels of contaminants emitted from the proposed power plant too low to even detect. Emissions would present an insignificant risk or hazard to the public. Nevertheless, in order to fully investigate and answer the question posed by this person, staff contacted several sources including the Regional Cancer Epidemiologist, the Tracy Press, the San Joaquin County Public Health Department, and the Central California Cancer Registry trying to find information on a possible cancer cluster in the Tracy, Livermore, or Mines Road areas. Staff has also searched databases on the web including the Central California Cancer Registry website, the National Cancer Institute website, the American Cancer Society website, the Physicians for Social Responsibility website, the ATSDR website, the North American Association of Central Cancer Registries (NAACCR) website, and the Northern California Cancer Center, Greater Bay Area Cancer Registry website. Staff was unable to find any information that reports a cancer cluster in the Tracy or Mines Road areas. Staff did find a 1995 study of an increased incidence of malignant

melanoma and brain cancer in children living in Livermore or born in Livermore. The study area focused on the Lawrence Livermore National Lab area which is about eight miles west of the TPP site and lies on the east side of Livermore.

Staff contacted several sources, including:

Monica Brown, MPH, PhD
Regional Cancer Epidemiologist
Cancer Surveillance Program, Region 3, Sacramento
916-454-6531

Dr. Brown has not heard of a perceived cancer cluster of any type in the area in question. To her knowledge there has never been a childhood or breast cancer cluster in Tracy or San Joaquin County. Dr. Brown did mention that one year ago in the Elk Grove area (more than 40 miles north-northeast of the project site) there was a perceived cancer cluster but her office's analysis and evaluation showed no excess cases or cluster compared to childhood cancer and breast cancer incidence rates in California for a particular population (age, sex, race, etc.). Dr. Monica Brown further stated that in Region 3 (which includes Sacramento and San Joaquin counties), they have never found a true cancer cluster in their history (never proven statistically, never proven by additional investigation by other agencies). In Region 3, they have documented increased malignant melanoma in San Joaquin County workers due to occupational sun exposure and Region 3 also has the highest smoking/tobacco-related cancers in the state (lung cancer, esophageal cancer, cancers of the oral cavity, cervical cancer).

POWER PLANT EFFICIENCY

This supplemental testimony provides responses to questions or issues raised at the Prehearing Conference, July 30, 2003.

1. **Question**: If G-class and H-class gas turbines are available, why are F-class turbines the best?

Response: Explained the FSA, page 5.3-5, the G-class turbine is nominally rated at 58.0 percent Lower Heating Values (LHV) efficiency; the H-class at 60 percent LHV, and the F-class at 56.5 percent LHV. Under nominal conditions, the F-class turbine might be expected to burn 2.7 percent more fuel than the G-class turbine and 6 percent more fuel than the H-class turbine. In actual operation, one would expect to see these differences narrow, as the larger capacity G- and H-class turbines would run at less than optimum (full) output more frequently than the smaller capacity F-class turbines. (Gas turbine efficiency drops rapidly at less than full load.) Staff believes, as stated on page 5.3-5, that the potential differences in efficiency among these machines are, in actual operation, so small as to be considered insignificant.

2. **Question**: Why are the G-class and H-class turbines not considered proven technologies?

Response: The world's first H-class turbine began operation within the past two months. The first G-class turbines were declared commercial in the United States in May 2001. F-class turbines have been operating in commercial service for nearly ten years; the first in California, the Crockett Cogeneration power plant, went commercial in 1996. Investors typically will not loan money to install machines with only one or two years' operating experience (G-class), and certainly are reluctant to consider loaning money for machines with only one or two months' operating experience (H-class), when they can finance machines with ten years' operating experience (F-class).

3. **Question**: Why compare the project to 40-year-old turbines?

Response: The 1960s-era utility-built steam boiler power plants referred to (FSA, page 5.3-2) make up the bulk of California's existing power system, and largely define the efficiency of the state's power grid. Eventually, enough of the highly-efficient, new-technology gas turbines, such as those proposed for Tesla, will enter service and enough of the 40-year-old steam boiler plants will be retired to increase the efficiency of the grid. Until such time, staff believes it is valid to compare the efficiency of new power projects with that of the state's power grid.

POWER PLANT RELIABILITY

This supplemental testimony provides responses to questions or issues raised at the Prehearing Conference, July 30, 2003.

1. **Question**: Does staff's conclusion that natural gas supplies will be adequate agree with the Energy Commission's projections in the 2002 Natural Gas Report?

Response: Staff agrees with the applicant (FSA, page 5.4-4) that supplies of natural gas will be adequate, and that pipeline capacity will be sufficient to serve the project. The Energy Commission's *Natural Gas Supply and Infrastructure Assessment (December 2002)* supports this conclusion. In the Executive Summary under Supply Trends (page v), the Assessment states that while gas prices will rise, sufficient gas will be available to those willing to pay the price. Under Infrastructure Trends (page vi), the Assessment states that additional pipeline construction will be needed to serve growing demand. The Assessment does not disagree with staff in our belief that market forces will prompt such construction in the future, as they have in the past.

TRANSMISSION SYSTEM ENGINEERING EVALUATION

This supplemental testimony provides responses to questions or issues raised at the Prehearing Conference, July 30, 2003.

1. **Question:** Given that several generation projects are being proposed in the Central Valley, is it still true that the Tesla project will provide substantial power in California?

Response: Yes both staff and the Cal-ISO conclude that the statement is true even though additional projects may be built.

2. **Question:** PG&E's System Impact Studies were conducted for 2004 and 2005 conditions. Do these studies need to be updated?

Response: No, the system impact studies for Tesla were done for a specific list of generating units in the generation queue as required by PG&E's tariffs. While generating units did enter the updated queue subsequent to the Tesla System Impact Study date, the Tesla project is not responsible for mitigating any impacts caused by such generating units. All impacts caused by subsequent generating units entering the queue are assessed based on their position in the queue and their System Impact Study.

3. **Question:** Are Staff's and the Cal-ISO's Conclusions and Recommendations still accurate?

Response: Yes, Staff contacted the Cal-ISO and they stated that they had "…reviewed the subject testimony, evaluated changes related to system reliability that have occurred subsequent to filing the testimony, and conclude that the Conclusions and Recommendations and the Requirements for Interconnection to the Grid are accurate". Staff also reviewed its testimony and considered changes subsequent to its issuance and concludes that the Summary of Conclusions, Conclusions and Recommendations and recommended Conditions of certification are accurate.

WORKER SAFETY AND FIRE PROTECTION

This supplemental testimony provides responses to questions or issues raised at the Prehearing Conference, July 30, 2003.

1. **Question:** Is a Tesla-specific mitigation plan for reducing impacts on the fire departments needed.

Response: Staff's proposed Worker Safety/Fire Protection conditions will ensure compliance with all applicable LORS and the requirement for the applicant (FSA, p. 4.14-11 and 12)to submit and implement both Project Construction and Project Operation Safety and Health Programs will adequately protect workers during construction and operation, protect against fire, and provide adequate emergency response procedures

Staff's proposed Hazardous Materials Management ("Hazmat") Conditions of Certification will ensure that the Project is designed, constructed and operated to comply with all applicable local, regional, state, and federal laws, ordinances, regulations and standards ("LORS") and to protect the public from significant risk of exposure to an accidental release of any hazardous material (FSA, p. 4.4-17 to 20). The ACFD provides both first response to a HazMat spill as well as technical evaluation, containment, and mitigation through a dedicated Hazmat response team. A brief description of how the ACFD provides emergency hazardous materials response - including accidents, releases, and spills - for the entire county will be provided. Whenever the first responder requests Hazmat aid, the County is available 24 hours a day, seven days a week (24/7). The County has several Hazmat teams, each team with Hazmat specialists who work in conjunction with a fire truck (ladder) company. They

have specialized equipment specifically for emergency responses and decontamination. It would normally take about 20-25 minutes for County Hazmat teams to respond to the TPP site on an emergency basis (Code 3). If the Hazmat spill were on the freeway or on the road en route to the site, it would take less time. The Hazmat team would do "the suit work," meaning that "they have the chemical protective suits, and the knowledge and equipment to actually enter contaminated zones, or hot zones, to either mitigate the problem or repair the situation." The first responder isolates the scene, recognizing that public safety is the number one priority.

Response times and distances to the TPP site from various fire departments, as determined by CEC staff, are listed in the following table. Response time was measured by staff during non-rush hour times, without Code 3, and following posted speed limits and traffic lights/signs. Response times will be shorter for emergency crews utilizing Code 3 lights and sirens.

Station	Distance to Tesla	Response Time	EMT
Alameda County Fire Dept. Station No. 8 Livermore	via back road – 14.7 miles via I-580 – 15.5 miles	via back road – 20 min. via I-580 – 20 min.	EMT - 3 paramedics
Alameda County Fire Dept. Station No. 8 New location	via back road – 10.3 miles via I-580 – 14.3 miles	via back road – 14 min. via I-580 – 17 minutes	
Alameda County Fire Dept. Station No. 4 Castro Valley Hazmat Response	via I-580 – 31.8 miles	via I-580 – 30 min.	EMT – 3 paramedics
Tracy Fire Department Station No. 94 Schulte Road Tracy, CA	3.8 miles	5 minutes	EMT - 1
CDF Station No. 26 Schulte Road Tracy, CA (staffed 5/15 to 11/15)	3.8 miles	5 minutes	EMT - 1

Staff will also present a panel of fire and hazardous materials experts from local agencies to answer any questions regarding how they provide fire-fighting, EMS, and HazMat response in Alameda County. The panel consists of:

Chief Bill McCammon, Alameda County Fire Dept.

Assistant Chief Rick Brown, Alameda Fire Dept. Hazardous Materials response

Chief Randy Bradley, Lawrence Livermore Lab Fire Dept.

Staff has found that the presence of the Tesla power plant would not result in a significant impact on the Alameda County Fire Department, the Tracy Fire Department, or the CDF fire. Therefore, staff is not requiring mitigation for this project. Staff is, aware however, that the Applicant is in negotiation with Alameda County Fire Department to provide enhanced fire-fighting and emergency response services to the area above and beyond that which is required. Staff always welcomes applicants and jurisdictions that work together to provide services above the required minimum level.

2. **Question:** Should there be some kind of working agreement between the Tracy Fire Department and the Tesla applicant should be made to mitigate project-related impacts?

Response: If mutual aid is requested by the ACFD for medical, fire, or hazmat emergency at the Tesla power plant, either CDF Fire Station 26 (which is staffed 6 months of the year from 5/15 through 11/15) or the Tracy Fire Department Station 94 can provide assistance. Both are located on Schulte Road in the same building. ACFD has an excellent working relationship with the CDF Fire. Both CDF 26 and TFD 94 have EMT-1 EMS response and Hazmat first responder capability.

3. **Question:** Should staff's cumulative analysis include some mitigation discussion and some actual mitigation to deal with the future build-out in the Tesla area?

Response: CEC Public Health and Land Use staff are unaware of any plans for development between Tracy and the Tesla site and no plans for any development in the Tesla Valley or west of there to the City Limits of Livermore. The land is zoned agriculture so any new house has to be on a ~300 acre parcel, which limits "infill". Because all public health impacts even at the points of maximum impact are way below the level of significance, any "infill" - if it were indeed possible - still wouldn't result in a significant risk to public health. We understand that there is thought to a development near the intersection of Corral Hollow Road and I-580 (the "Tracy Hills" development). This proposed development would be 5-6 miles southeast of the facility and staff's conclusion of no significant impact applies to that location as well. The fire protection issue would not impact on ACFD to respond - nor on CDF Fire or LLL FD to provide mutual aid - because none of them have primary fire or EMS responsibility for the City of Livermore (that's the jurisdiction of Livermore FD) or for the city of Tracy (that's the jurisdiction of TFD). So, the ACFD would provide only mutual aid to any "infill". Regarding HazMat, the only impact that would result would be if many more homes are built in Tesla valley - after a major rezoning is completed and it is staff's understanding of CEQA that if that were to occur, any development in that valley would have to address the CEQA issues through an EIR because the power plant would have already been built and the substation has been there for a long time.

ALTERNATIVES

This supplemental testimony provides responses to questions or issues raised at the Prehearing Conference, July 30, 2003.

1. **Question**: Clarify why staff chose four alternative sites that were not the sites that were used by the applicant in the applicant's alternatives analysis, and why staff chose the four alternative sites evaluated.

Response: Staff's selection of the four alternative sites evaluated in the FSA, and why the applicant's alternative sites were screened out, are enumerated and discussed on Page 6-4 of the Alternatives FSA, under the section entitled "Site Alternatives." As discussed in that section, the applicant presented seven sites in the AFC's Alternatives section (3.10). However, based on field reconnaissance and preliminary analysis of the comparative merits of these sites to the proposed TPP site, Energy Commission staff

determined that all seven sites have environmental impacts that are equal to or greater than the proposed TPP site. Therefore, all of these sites were eliminated from the analysis in the FSA. In addition, as discussed on page 6-21 of the Alternatives FSA, the California Environmental Quality Act Guidelines state that the alternatives discussion need not consider alternatives that are either infeasible or do not avoid significant environmental impacts. In the Alternatives analysis of the AFC, all seven alternative sites presented are within close proximity to the proposed TPP site. As such, the potential significant, impacts to biological resources are applicable to each alternative site proposed by the applicant. As stated in the AFC, all of the alternative sites are located in grazed fields similar to the project site (which has known San Joaquin kit fox dens) and burrowing owls would be expected at each of the alternative sites. In addition, due to their proximity to the proposed TPP site, construction of a power plant at any of the alternative sites likely would rely on the same water supply as the proposed in the AFC.

Given that the applicant's proposed alternative sites did not present a location that eliminated or reduced proposed TPP impacts, staff identified (as discussed on page 6-4 of the Alternatives FSA) four alternative sites for evaluation in the FSA based on the following criteria:

- The site should avoid or substantially lessen one or more of the potential significant effects of the project;
- The site should not create new additional impacts of it's own;
- The site should meet most of the project objectives;
- The site should be vacant or have a reasonable potential to become vacant; and
- The site should not be located adjacent to moderate or high density residential areas, sensitive receptors (such as schools and hospitals), or recreation areas.

2. **Question:** What was staff's final conclusion?

Response: As discussed in detail on pages 6-27 through 6-28 of the Alternatives FSA, although the four site alternatives considered in FSA offer some advantages and disadvantages in comparison to the proposed project, none of the alternative sites appear to provide environmental or electrical system advantages beyond that of the proposed TPP project site. Additionally, the intent of Alternatives Table 1 in the FSA is to summarize the major issues and concerns regarding the four alternative sites to give the reader an overall picture of the comparative merits of each of the sites to the proposed TPP.

As noted on page 6-1 of the Alternatives FSA, the Energy Commission does not have the authority to approve an alternative or require FPL to move the proposed project to another location, even if it identifies an alternative site that meets the project objectives and avoids or substantially lessens one or more of the significant effects of the project. Implementation of an alternative site would require that the applicant submit a new AFC, including revised engineering and environmental analysis; this more rigorous AFC-level analysis of any of the alternative sites could reveal environmental impacts, non-conformity with laws, ordinances, regulations, and standards; or potential mitigation

requirements that were not identified during the more general alternatives analysis presented in the Alternatives FSA.

Energy Commission staff did not find an Environmental Impact that is not mitagatable at the proposed location, nor did staff find that any of the alternative locations examined were environmentally superior to the proposed site.

APPENDIX C
FSA ADDENDUM #2
TRAFFIC AND TRANSPORTATION

Testimony of Steven J. Brown, P.E. and Eileen Allen

INTRODUCTION

The Traffic and Transportation Section of the Final Staff Assessment (FSA) addresses the extent to which the project may affect the transportation system within the vicinity of the proposed Tesla Power Project (TPP). The influx of large numbers of construction workers can, over the course of the construction phase, increase roadway congestion and also affect traffic flow. In addition, the transportation of large pieces of equipment can affect roadway congestion and safety. The construction of linear facilities (such as water service) can temporarily disrupt traffic flows when trenching occurs in roadways. Potential impacts related to traffic operations and safety hazards resulting from the construction and operation of the project are discussed below.

LAWS, ORDINANCES, REGULATIONS AND STANDARDS

Federal, state, and local regulations that are applicable to the proposed project are listed below. Included are regulations related to the transportation of hazardous materials, which are designed to control and mitigate for potential impacts. The Applicant has indicated its intent to comply with all federal, state, and local regulations related to the transport of hazardous materials.

FEDERAL

The federal government addresses transportation of goods and materials in Title 49, Code of Federal Regulations:

- Title 49, Code of Federal Regulations, sections 171-177, governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.
- Title 49, Code of Federal Regulations, sections 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations, addresses safety considerations for the transport of goods, materials, and substances over public highways.

STATE

The California Vehicle Code and the Streets and Highways Code contain requirements applicable to the licensing of drivers and vehicles, the transportation of hazardous materials and rights-of-way. The California Health and Safety Code addresses the transportation of hazardous materials. Specific provisions include:

- California Vehicle Code, section 353 defines hazardous materials. California Vehicle Code, sections 31303-31309, regulates the highway transportation of hazardous materials, the routes used, and restrictions thereon;
- California Vehicle Code, sections 31600-31620, regulates the transportation of explosive materials;

- California Vehicle Code, sections 32000-32053, regulates the licensing of carriers of hazardous materials and includes noticing requirements;
- California Vehicle Code, sections 32100-32109, establishes special requirements for the transportation of inhalation hazards and poisonous gases;
- California Vehicle Code, sections 34000-34121, establishes special requirements for the transportation of flammable and combustible liquids over public roads and highways;
- California Vehicle Code, sections 34500, 34501, 34501.2, 34501.3, 34501.4, 34501.10, 34505.5-.7, 34506, 34507.5 and 34510-11, regulates the safe operation of vehicles, including those which are used for the transportation of hazardous materials;
- California Health and Safety Code, sections 25160 et seq., addresses the safe transport of hazardous materials;
- California Vehicle Code, sections 2500-2505 authorizes the issuance of licenses by the Commissioner of the California Highway Patrol for the transportation of hazardous materials including explosives;
- California Vehicle Code, sections 13369, 15275, and 15278 address the licensing of drivers and the classifications of licenses required for the operation of particular types of vehicles. In addition, it requires the possession of certificates permitting the operation of vehicles transporting hazardous materials;
- California Streets and Highways Code, sections 117 and 660-72, and California Vehicle Code sections 35780 et seq., require permits for the transportation of oversized loads on county roads;
- California Street and Highways Code, sections 660, 670, 1450, 1460 et seq., 1470, and 1480 regulates right-of-way encroachment and the granting of permits for encroachments on state and county roads.
- All construction within the public right-of-way will need to comply with the “Manual of Traffic Controls for Construction and Maintenance of Work Zones” (Caltrans, 1996).

LOCAL

Since the project site is near the Alameda County/San Joaquin County border, the standards and regulations in both jurisdictions are relevant.

Alameda County

The Alameda County Congestion Management Agency (ACCMA) oversees preparation and implementation of the Countywide Transportation Plan (CTP). The CTP outlines planned transportation facilities and funding requirements throughout Alameda County. The Metropolitan Transportation Commission (MTC), through the Regional Transportation Plan (RTP) process, allocates and distributes federal and state transportation funds to Bay Area cities and counties, including Alameda County. The RTP also includes the expenditure of local funds by local agencies.

East County Area Plan

Alameda County has also prepared the East County Area Plan, which includes a Transportation Element. A primary goal of the Transportation Element is to create and maintain a balanced, multi-modal transportation system that provides for the efficient and safe movement of people, goods, and services. For this portion of Alameda County, the applicable Level of Service standard is LOS C or better. Roads in Alameda County have a normal weight limit of 14,000 pounds.

San Joaquin County

San Joaquin County General Plan

The San Joaquin County General Plan provides overall policy direction for roadways in the unincorporated portion of San Joaquin County in the vicinity of the project site. The applicable Level of Service standard is LOS C or better. Roads in San Joaquin County have a normal weight limit of 14,000 pounds, and there are no other posted weight limits on affected area roadways.

City of Tracy

City of Tracy Urban Management Plan/General Plan (UMP) Circulation Element

The UMP/General Plan is a long range planning document guiding development in and around the City of Tracy. Its Circulation Element addresses the goals and standards for current and future traffic flow and the planned network of roads in the Tracy area. UMP/General Plan Action CI 2.3.1 establishes a Level of Service Standard of LOS C or better for streets within the city limits.

PROJECT FEATURES

SETTING

Regional Description

The Tesla Power Project is planned for a site approximately 0.5 miles north of the existing Pacific Gas & Electric (PG&E) Tesla substation, in eastern Alameda County. This site is just west of the Alameda/San Joaquin County boundary. The project site is bordered by an abandoned railroad right-of-way to the north and Midway Road to the east.

TRAFFIC AND TRANSPORTATION FIGURE 1 shows the site and surrounding area. The project is located in a rural area, and rural roadways provide access to the site. There are no nearby urban services. Descriptions of relevant roads and highways in the study area are provided below.

Freeways and Local Roadways

U.S. Interstate 580, located north and east of the project site, consists of eight lanes and connects the San Francisco Bay Area with Interstate 5. Interstate 580 currently carries approximately 112,000 vehicles per day near Midway Road.

U.S Interstate 205, located north of the project site, is an east-west freeway consisting of eight lanes near the TPP site. Interstate 205 currently carries approximately 83,000 vehicles per day east of its intersection with Interstate 580.

Midway Road provides access to the project site and is a two-lane rural roadway. Midway Road currently carries approximately 160 vehicles per day. This roadway is characterized by limited width, a lack of paved shoulders, horizontal and vertical curves, and limited sight distance. The structural integrity was not designed to accommodate heavy commercial vehicles.

Altamont Pass Road is a two lane east-west rural roadway carrying approximately 2,800 vehicles per day west of Midway Road.

Grant Line Road is a two lane east-west rural roadway carrying approximately 1,800 vehicles per day east of Midway Road.

Mountain House Parkway is a two lane north-south rural roadway, with approximately 1,700 vehicles per day east of the TPP site.

Public Transportation

Public transportation is not available near the project site.

Bicycle Facilities

There are no designated bicycle routes or bicycle lanes in the TPP project area.

PLANNED ROADWAY AND TRANSIT IMPROVEMENTS

No planned roadway improvements are expected to directly affect project access. Existing intersection controls on roadways providing access to the site (described below) are expected to remain the same during the construction and operations period.

TRUCK TRAFFIC

Recent traffic counts found a maximum of three (3) trucks per hour on Patterson Pass Road and Midway Road near the TPP site. Truck traffic on Mountain House Road near the site ranges from 14 to 16 percent of all traffic (23 trucks during the PM peak hour near Grant Line Road, and 121 trucks during the PM peak hour near Schulte Road). On Grant Line Road nearest the TPP site, trucks represent around 1 percent of all traffic.

CURRENT INTERSECTION AND ROADWAY OPERATING CONDITONS

Intersections are usually the critical elements of the roadway system when assessing adequate travel capacity, maximizing safety, and minimizing environmental impacts. The operating conditions of a roadway system, including intersections, are described using the term “level of service”. Level of service (LOS) is a description of a driver’s experience at an intersection or roadway based on the level of congestion (delay). However, it is not a measure of safety or accident potential. LOS can range from “A”,

representing free-flow conditions with little or no delay, to “F”, representing saturated conditions with substantial delay.

LOS standards for Alameda County and San Joaquin County are similar in the vicinity of the TPP site – both jurisdictions utilize LOS C as the applicable Level of Service standard. Any study roadway or intersection operations below LOS C would require mitigation measures. The five study intersections and the current service levels (AM/PM) are listed below in **TRAFFIC AND TRANSPORTATION Table 1**.

TRAFFIC AND TRANSPORTATION Table 1
Intersection Level of Service - Existing Conditions

North/South Street	*East/West Street*	*Jurisdiction/ Analysis Type*	*AM LOS*	*PM LOS*
Midway Rd.	Grant Line Rd.	Alameda Co./ Two-Way Stop	Midway Rd.=C Grant Line Rd.=A	Midway Rd.=C Grant Line Rd.=B
Altamont Pass Road	Grant Line Rd.	Alameda Co./ Two-Way Stop		Grant Line Rd.=A Altamont Pass=B
Mountain House Pkwy.	Grant Line Rd.	San Joaquin Co./ All-Way Stop		Mtn. House= A (NB) A (SB) Grant Line= B (EB) A (WB)
Mountain House Pkwy.	Schulte Rd.	San Joaquin Co./ Traffic Signal		B
Midway Rd.	Patterson Pass Rd.	Alameda Co./ Two-Way Stop	Midway Rd.=B Patterson Pass=A	Midway Rd.=B Patterson Pass=A

HCS 2000 two-way stop control and all-way stop control methodologies provides LOS calculations by movement, not for the entire intersection.
Levels of service are provided for each intersection approach where applicable.
EB = Eastbound; WB= Westbound; NB = Northbound; SB = Southbound
Mountain House/Schulte is controlled by a traffic signal; all other intersections are controlled by stop signs.

IMPACTS

The California Environmental Quality Act (CEQA) indicates that a project could have a significant effect on traffic and transportation if the project will:

- Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the highway and road system (i.e. result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).
- Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate parking capacity.
- Result in inadequate emergency access.
- Create a significant hazard to the public or the environment through the routine transportation of hazardous materials.
- Result in a change to air traffic patterns.

CONSTRUCTION PHASE – PLANT SITE

Commute Traffic and Level of Service

Trip generation for the project will be comprised of both construction worker trips and delivery activity. Actual trips will vary during the course of the two-year construction period. The construction phase of the project will require a peak workforce of approximately 974 workers per day. The applicant's estimate of 1,298 peak construction period daily trips and 519 peak hour trips (by construction workers) is based upon the assumption that carpooling will result in an average vehicle occupancy rate of 1.5 workers per vehicle. Staff concurs with this assumption given our review of the recent carpooling trends associated with power plant construction at sites fairly near urban areas (e.g. the Livermore/Pleasanton/San Jose region and the Tracy/Stockton/Sacramento region). Approximately 90-peak *construction period* truck delivery trips per day are also anticipated. During the two-year construction period, the *average* number of construction worker daily trips will be approximately 648, plus 40 truck delivery trips.

The preferred commuting route will depend on the resident location of construction workers. Workers from Livermore/Pleasanton and eastern Alameda County will arrive at the site via I-580, Grant Line Road, and Midway Road. Workers from Tracy/Stockton and San Joaquin County will arrive at the site via I-205, I-580, Mountain House Parkway, Schulte Road, and Midway Road.

To determine the potential for impact, construction employee commute trips were added (in the AFC) to existing traffic volumes on study area roadways and intersections. Staff concurs with this technical approach. **TRAFFIC AND TRANSPORTATION Table 2** summarizes intersection operations with the project. The LOS results are based upon the AFC assumption that an average vehicle occupancy rate of 1.5 workers per vehicle will be achieved during the construction phase.

According to the AFC analysis, LOS at the intersection of Midway Road and Grant Line Road is expected to deteriorate from LOS C/A[1] to LOS D/A (AM peak hour, 6:00 AM to 7:00 AM)) and from LOS C/B to LOS D/B (PM peak hour, 5:00 PM to 6:00 PM) with the addition of project-related trips during the peak month of construction activity.. Sight distance is also limited at this intersection by both the alignment of the roadway and the presence of the bridge structure crossing the California Aqueduct.

The intersection of Altamont Pass Road with Grant Line Road is expected to deteriorate from LOS A/B to LOS A/E in the PM peak hour (5:00 PM to 6:00 PM) during the peak month of construction activity. LOS at all other study intersections would insignificantly change (i.e., LOS C or better to LOS C or better) with the addition of project-related traffic.

[1] **TRAFFIC AND TRANSPORTATION Table 2** documents which LOS letter applies to which intersection approach movement.

TRAFFIC AND TRANSPORTATION Table 2
Intersection Level of Service - Existing Plus Project (Construction Peak)

North/South Street	*East/West Street*	*Jurisdiction/ Analysis Type*	*AM LOS*	*PM LOS*
Midway Rd.	Grant Line Rd.	Alameda Co./ Two-Way Stop	Midway Rd.=**D** Grant Line Rd.=A	Midway Rd.=**D** Grant Line Rd.=B
Altamont Pass Road	Grant Line Rd.	Alameda Co./ Two-Way Stop		Grant Line Rd.=A Altamont Pass=**E**
Mountain House Pkwy.	Grant Line Rd.	San Joaquin Co./ All-Way Stop		Mtn. House= A (NB) A (SB) Grant Line= C (EB) A (WB)
Mountain House Pkwy.	Schulte Rd.	San Joaquin Co./ Traffic Signal		B
Midway Rd.	Patterson Pass Rd.	Alameda Co./ Two-Way Stop	Midway Rd.=C Patterson Pass=B	Midway Rd.=C Patterson Pass=A

HCS 2000 two-way stop control and all-way stop control methodologies provides LOS calculations by movement, not for the entire intersection.
EB = Eastbound; WB= Westbound; NB = Northbound; SB = Southbound
AM peak hour results are note included at three locations due to the relatively higher traffic volumes (and resulting worst case results) during the PM peak hour.
Project-related impacts are shown in boldface.
Levels of service are provided for each intersection approach where applicable.
Mountain House/Schulte is controlled by a traffic signal; all other intersections are controlled by stop signs.

While Alameda County and San Joaquin County Level of Service policies do not specifically address instances where (1) one movement at an intersection (rather than the entire intersection) exceeds Level of Service C; or (2) the conditions are temporary; these instances are regarded as potential impacts.

Given the Alameda and San Joaquin County LORS requiring LOS C, it is staff's intent that construction traffic will not have a significant effect on local traffic and public safety at those intersections where the LOS is expected to exceed LOS C, (i.e., Midway Road with Grant Line Road and Altamont Pass Road with Grant Line Road). Therefore, staff has proposed mitigation measures and conditions of certification that would require the applicant to consult with the Alameda County Public Works Agency and San Joaquin County Public Works Department on the development of a Traffic Control Plan (TCP) for construction traffic. The TCP should address the placement of warning signs about construction traffic where sight limitation may exist and the need for temporary traffic signals at the intersections of Midway Road with Grant Line Road and Altamont Pass Road with Grant Line Road. Given the road narrowness and lack of shoulders on Midway Road the TCP should also address the option for flagmen on an occasional

basis, when extra wide loads may necessitate temporary lane closure. These mitigation measures and conditions of certification are discussed later in this analysis (see Conditions of Certification **TRANS-1** and **TRANS-9)**.

The proposed project entrance road would create a new intersection with Midway Road. Sight distance to the north is approximately 800 feet, and sight distance to the south is approximately 550 feet. This is adequate based on established engineering standards.

To ensure public safety a condition of certification has been proposed requiring the applicant to install traffic deceleration and left turn storage lanes for traffic on Midway Road, see Condition of Certification **TRANS-6**.

Parking and Laydown Areas

On-site construction worker parking will be provided in the southwest portion of the site, which is sufficient in size to accommodate the anticipated parking needs (i.e., approximately 500 vehicles). All plant construction laydown areas will be located on-site along the northern edge of the construction site. Condition of Certification **TRANS-5** requires the identification of designated parking and staging plans for all phases of project construction.

Truck Traffic

Truck deliveries are expected to occur throughout the day. At the peak month of construction, 21 deliveries per day are expected to access the project site. This averages to approximately 3 trips per hour. Midway Road is narrow and lacks paved shoulders, which is problematic for oversized commercial vehicles. In addition, the Midway Road pavement section was not designed to accommodate heavy commercial vehicles. Conditions of Certification **TRANS-1**, **TRANS-2**, **TRANS-3**, and **TRANS-7** include the following measures to address potential truck traffic impacts:

- Scheduling truck deliveries during off peak hours,
- Complying with California Department of Transportation (Caltrans) and affected local jurisdictions on limitations on vehicle size and weight,
- Complying with Caltrans and local jurisdictional limitations for encroachment into public right-of-way, and
- The development of a Traffic Control Plan (TCP) to minimize the effect of the construction traffic (i.e. commuter workforce, trucks and oversize/overweight loads) on Midway Road.

Transportation of equipment that will exceed the load size and limits of certain roadways will require special permits from the Alameda County, San Joaquin County, and/or Caltrans. This is a concern given the narrowness and lack of shoulders on Midway Road. Oversize loads may necessitate use of flagmen for temporary lane closure. The TCP should also address the option of using multi-axle/extra wheel vehicles to spread heavy weighted loads more evenly on Midway Road. **TRANS-7** requires the applicant to repair any road damage resulting from construction, which addresses concerns expressed by the Alameda Public Works Department. Condition of Certification **TRANS-2** addresses Oversize/overweight loads.

Transport of Hazardous Materials

In addition to deliveries of heavy equipment, construction materials (such as concrete, wire, pipe, cable, fuels), and consumables, other deliveries will include hazardous materials to be used during project construction. The transportation and handling of hazardous substances associated with the project can increase roadway hazard potential. The handling and disposal of hazardous substances are addressed in the Waste Management Section, and the Hazardous Materials Section of this report. Potential impacts of the transportation of hazardous substances can be mitigated to insignificance by compliance with Federal and State standards established to regulate the transportation of Hazardous Substances. Conditions of Certification (including **TRANS-4**) that ensure compliance with this requirement are discussed under their respective subsection later in this analysis.

The California Department of Motor Vehicles specifically licenses all drivers who carry hazardous materials. Drivers are required to carry a manifest, available for inspection by the California Highway Patrol at inspection stations along major highways and interstates. Drivers are also required to check for weight limits and conduct periodic brake inspections. Commercial truck operators handling hazardous materials are also required to take instruction in first aid and procedures on handling hazardous waste spills.

The California Vehicle Code and the Streets and Highways Code (Sections 31600 through 34510) are equally important to ensure that the transportation and handling of hazardous materials are done in a manner that protects public safety. Enforcement of these statutes is under the jurisdiction of the California Highway Patrol.

Emergency Access

Emergency access to the site is possible from both Alameda County and San Joaquin County. The plant site is located in Alameda County. Therefore, Alameda County will provide police, fire, and emergency services. The following emergency services would be provided from:

- Livermore - fire and emergency services by the Alameda County Fire Department, Pleasanton - medical treatment facilities, and
- San Leandro - Alameda County Sheriff's Department (closest responding station).

In Alameda County, emergency response would occur via Interstate 580, Altamont Pass Road, Grant Line Road, and Midway Road.

If additional emergency services are required these services could come from San Joaquin County. In San Joaquin County, emergency access is available via Interstate 580, Mountain House Parkway, and Midway Road. Condition of Certification **TRANS-1** requires preparation of an emergency access plan.

Construction Phase – Linear Facilities

Pipeline Construction

The TPP includes construction of a 2.8-mile, 24-inch natural gas pipeline from the site east to a Pacific Gas and Electric pipeline located south of the Intersection of I-205 and Patterson Pass Road. Pipeline construction laydown, parking, and storage will be combined with the directional bore staging area. The construction of the gas pipeline will take approximately three months with an average workforce of 40. This workforce has been accounted for in the total construction workforce for the project. The construction route for the pipeline will parallel Midway Road south from the project site to Patterson Pass Road approximately 0.5 mile. At this location the pipeline will the turn and go northeast crossing agricultural/grazing land.

The TPP construction will require a water pipeline of 1.7 miles. The construction activity will parallel Midway Road running from the site north to the California Aqueduct. This construction will take approximately two months and have a total workforce of 32. The construction workforce will be located at the project site and has been accounted for as part of the peak construction workforce.

For both pipelines any laydown activities and construction parking that is required away from the project site will take place outside public rights-of-way. Construction-related traffic delays on Midway Road will be regulated through the encroachment permit process, and will affect low-volume rural roadways. Repair and remediation for any damage to public roadways will be required through the encroachment permit process. Conditions of Certification **TRANS-1**, **TRANS-3**, **TRANS-5**, and **TRANS-7** address mitigation measures for potential pipeline construction impacts.

Transmission Line Construction

A transmission line of 0.8-mile will be constructed off-road traveling south from the TPP site to the Pacific Gas and Electric Tesla Substation. The construction will take approximately four months. The workforce for this activity will be located at the project site and has been included in the plant site workforce. The laydown and staging area will be located at the project construction site for the TPP.

Energy Commission Staff's Proposed Wastewater Pipeline

The Commission's Water Resources staff has proposed that the applicant consider an alternative cooling option, which would involve using treated wastewater from the City of Tracy's Treatment Plant (see **WATER RESOURCES Figure *6*)**. This option would require that an approximately 11-mile pipeline be built from the City's facility on the northern edge of Tracy in San Joaquin County, to the TPP site in eastern Alameda County. Approximately 3 miles of this pipeline would run through Alameda County on Patterson Pass, Midway, and Grant Line Roads; while approximately 8 miles would traverse San Joaquin County on Grant Line, San Jose, Middle, and Corral Hollow Roads. A very short segment would run along Arbor Avenue within the City of Tracy until it entered the water treatment plant premises. The land uses surrounding these roads are predominantly agricultural, with some scattered rural residences,

industrial/infrastructure adjacent to the TPP site, and industrial development near the Tracy water treatment facility. These land uses are not high-volume traffic generators.

With the exception of two Grant Line Road intersections, these local roads in both counties and the City of Tracy are estimated to be operating at LOS C or better. Traffic and Transportation Table 2 shows that with the addition of TPP project traffic, the intersection of Grant Line and Midway Roads would be operating at LOS D during the P.M. peak hour, and the intersection of Grant Line and Altamont Pass Roads would be operating at LOS E or worse during the P.M. peak hour. Underground utilities would be installed on Midway Road as well as other roadways in Alameda County and San Joaquin County. Prior to site mobilization, photographs or videotape will be taken of the roads and intersections that could potentially be impacted by pipeline construction. Conditions of Certification **TRANS-1**, **TRANS-3**, and **TRANS-7** are intended to mitigate any linear facility construction-related impacts, and these Conditions would be applicable to the proposed staff pipeline route. The Grant Line/Altamont Pass intersection would not be affected by the wastewater pipeline, and pipeline construction activity affecting the Grant Line/Midway intersection would be timed to precede the peak traffic periods as required in **TRANS-1**.

Short- term construction traffic and temporary lane closures resulting from pipeline construction on the roads along the route for staff's proposed wastewater pipeline would not result in deterioration of LOS on these roads to unacceptable levels (i.e. D or worse). The same labor force involved in TPP gas pipeline construction would likely be used for construction of the wastewater pipeline, so no increase in construction workforce traffic is expected.

Operational Phase

Commute Traffic

The proposed project is expected to require 36 full-time employees, with approximately 20 employees during the day shift. To determine the potential for impact, employee commute trips were added to existing traffic volumes on study area roadways and intersections. Given the relatively small number of full-time employees at the TPP, no significant impacts would result from the addition of project-related traffic during plant operations.

Truck Traffic

Deliveries to the project site are expected for on-going maintenance of the plant. The incremental change in the number of delivery trips to the plant site is expected to be nominal and will generally occur during non-commute periods. Therefore, the resulting LOS on local roadways would remain unchanged from the existing LOS.

Transport of Hazardous Materials

The TPP will necessitate the delivery of aqueous ammonia, a hazardous substance. Deliveries will occur from Interstate 580 in Alameda County or Interstate 580 in San Joaquin County via Midway Road *and proceeding south to the project site*. The transportation and handling of hazardous substances associated with the project can

increase roadway hazard potential. The handling and disposal of hazardous substances are also addressed in the **Waste Management, Workers Safety and Fire Protection,** and **Hazardous Materials** sections of this report. Potential impacts of the transportation of hazardous substances can be mitigated to insignificance by compliance with Federal and State standards established to regulate the transportation of Hazardous Substances. Mitigation measures and Conditions of Certification (including **TRANS-4**) that ensure this compliance are discussed under their respective subsection later in this analysis.

Change In Air Traffic Patterns

The airport in the overall vicinity of the project is the Byron Airport, located approximately 14 miles from the site, and the Tracy airport located approximately 6.5 miles from the site. Given these distances neither airport will be affected by the project.

The TPP includes construction of four, 200-foot exhaust stacks. While this project is located adjacent to existing Pacific Gas and Electric transmission lines and away from any major airport facilities, measures should be taken to adequately mark and light the stacks. This will mitigate potential conflicts with aerial activities related to local agricultural operations (see Condition of Certification **TRANS-8**).

CUMULATIVE IMPACTS

No other major construction projects, which would affect the roadways utilized by the proposed TPP, are anticipated that would coincide with construction of the proposed project. Adverse cumulative traffic impacts are therefore not expected during the construction of the project. During the operations phase, the project will generate less than 50 peak hour trips. No adverse cumulative traffic and transportation impacts are expected to occur due to the ongoing operations of the project.

ENVIRONMENTAL JUSTICE

Staff has reviewed Census 2000 information that shows the minority population is less than 50 percent within a six-mile radius of the proposed TPP power plant (please refer to **Socioeconomics Figure 1** in this Staff Assessment). However, as indicated in **Socioeconomics Figure 1**, there are multiple census blocks with greater than 50 percent minority persons within the six-mile radius. Staff considers these to be pockets or clusters. Staff also reviewed Census 1990 information that shows the low-income population is less than fifty percent within the same radius. Because staff has determined there to be pockets or clusters of minority population within the six-mile radius, staff has conducted a focused environmental justice analysis for Traffic and Transportation.

Based on the Traffic and Transportation analysis, staff has not identified unmitigated significant direct or cumulative impacts resulting from the construction or operation of the project, and therefore there are no traffic and transportation environmental justice issues related to this project.

FACILITY CLOSURE

The minimum design life of the power plant is expected to be 30 years. At least twelve months prior to the proposed decommissioning, the applicant shall prepare a Decommissioning Plan for submission to the Energy Commission for review and action. At the time of closure all applicable Laws, Ordinances, Regulations, and Standards (LORS) will be identified and the closure plan will address compliance with these LORS. The effects of closure for the Tesla Power Plant on traffic and transportation will be similar to those discussed for the construction of the project. Closure will create traffic levels that are similar in intensity and duration to those expected during facility construction. The removal of waste and other materials will produce impacts from truck traffic. At this time, no specific conclusions can be drawn on the effects of project closure on traffic and transportation.

MITIGATION

The applicant has indicated their intention to comply with all LORS relating to:

- the transport of hazardous materials;
- the transport of oversized loads; and
- the receipt and compliance with all necessary encroachment and transportation permits for any construction activity within the public right-of-way.

The applicant should also implement the following traffic and transportation mitigation measures:

- Enforce a policy that all project-related parking occurs in designated parking areas;
- Repair any damage to adjacent roadway sections incurred during construction to the road's pre-project construction condition. Any repair work needed shall occur outside of the ambient street traffic peak periods;
- Prepare a construction traffic control and transportation demand management program subject to review by Alameda County Public Works Agency and San Joaquin County Public Works Department. The construction traffic control and transportation demand management program should include measures to prevent construction-related speeding, maximize construction worker carpooling, the placement of warning signs about construction traffic and temporary traffic signal at those intersection where the LOS exceeds C. The construction traffic control and transportation demand management program should include measures to mitigate impacts associated with construction activities occurring within any public street right-of-way in accordance with local jurisdictional requirements.

RESPONSE TO PUBLIC COMMENTS

Comment: On October 17, 2002, Barbara L. Hand (resident of Patterson Pass Road in Tracy, California) submitted a letter outlining concerns related to the Tesla Power Project. Ms. Hand also provided an article (article date is unknown) from the Tracy

Press, with the headline “CHP, county focus on speeders in rural area”. Ms. Hand’s comments relating to traffic are quoted below, followed by staff’s response in italics.

“We have been heavily impacted by traffic because of Tracy’s growth. We oppose *one* more truck or *one* more car out here! Besides more traffic there will be danger with chemicals on an already heavily impacted road.”

Response: A recent newspaper article has noted speeding issues on area roadways. The Traffic Control Plan (TCP) will direct construction worker traffic outside of the peak commute hours, which is when most speeding has been documented to occur. During preparation of the TCP, the applicant will meet with traffic enforcement officials from Alameda County, San Joaquin County, the City of Tracy, and the California Highway Patrol to discuss measures to discourage speeding from construction-related traffic. During the operational phase, the TPP will require approximately 36 full-time employees, with approximately 20 workers during the day shift. This small operational workforce will result in minimal additional potential for speeding vehicles, and an insignificant overall impact on traffic in the Patterson Pass Road area..

TRANS-1 (Traffic Control Plan); **TRANS-2** (weight limits); **TRANS-3** (encroachment permits); **TRANS-4** (hazardous materials); ***TRANS-7*** <u>(road condition and mitigation plan);</u> and **TRANS-9** (traffic signals) are intended to address the speeding and hazardous materials concerns articulated in this comment.

Comment: On August 9, 2002, the Alameda County Public Works Agency submitted comments (in quotes below) on the Tesla Power Project. Staff’s responses are provided in italics.

“We have reviewed the revised driveway location and proposed entrance configuration, and find them acceptable, in concept. Detail such as the length of the left-turn lanes, through lanes, and shoulder widths are not yet finalized. We would be pleased to continue working with FPL on finalizing those details and in the review of necessary plan revision, if that is acceptable to the CEC and the applicant. We anticipate that these details can be finalized after the CEC issues its Certification and prior to construction of the roadway improvements.”

Response: Energy Commission staff concurs that these issues can be addressed in construction plans.

Comment: “Construction access to the site is a concern of this Agency. The weight of trucks on the roadway, the narrow lanes of between ten and eleven foot of width, and the curved alignment indicate that haul route access may be impaired. We understand that if oversized commercial truck traffic will cross the centerline of the roadway, that Caltrans’ guidelines prohibit that route’s use by truck traffic. County Roadway’s are typically open to commercial vehicles except for oversize vehicles, and specific length and weight limitations are not established. On Midway Road, without this project, the need for such limitations does not appear to exist. In addition, construction worker access and parking on the site and at the intersection of Grant Line Road needs to be planned, monitored, and regulated for compliance with safe and adequate access requirements. Additional evaluation of construction access is considered necessary during the contracting and detailed design phases of the project.”

Response: **TRANS-2** (weight limits); **TRANS-3** (encroachment permits); **TRANS-5** (parking); ***TRANS-7*** (road condition and mitigation plan); and **TRANS-9** (traffic signals) are intended to address the concerns articulated in this comment. Additional refinement will occur during contracting and detailed design phases.

Comment: "We are concerned with the pipeline installation in the roadway, and with development of adequate traffic control plans…We anticipate that these details can be finalized after the CEC issues its Certification and prior to construction of the roadway improvements."

Response: **TRANS-1** will result in preparation of a Traffic Control Plan, to be prepared in conjunction and subject to the approval of the Alameda County Public Works Agency.

Comment: "Alternatives discussed with FPL for the pipeline installation and hauling operations include widening the roadway shoulder, adjustment of alignment at critical locations along the roadway, installing the pipeline within the shoulder area, road closure during the day, and road closure during the night. It is unlikely that the contractor will be able to maintain a travel lane open at all times during construction work hours. Roadway closures or construction not within regular work hours (9 AM to 3:30 PM) requires the approval of the Alameda County Board of Supervisors. This allows the public to provide input on the Traffic Control Plan, and allows emergency services and other interested parties the notification they need to plan for the proposed closure. It also provides the applicant a forum in which to evaluate what might be the least disruptive approach to construction at any given site. Additional time necessary to complete this action should be considered in the project planning and scheduling."

Response: **TRANS-1** requires the preparation and review of a Traffic Control Plan well in advance of any construction activities (the TCP must be submitted 30 days in advance of any site preparation or earth moving work).

CONCLUSIONS AND RECOMMENDATIONS

Staff has concluded that the proposed project has the potential to cause an impact in the traffic and transportation area. However, all identified impacts can be mitigated to a level of insignificance by implementing the mitigation measures contained in the Conditions of Certification section below.

CONDITIONS OF CERTIFICATION

TRANS-1 The project owner shall develop a construction traffic control and transportation demand management program that limits peak hour construction-period truck and commute traffic in coordination with the Alameda County Public Works Agency, San Joaquin County Public Works Department, and the City of Tracy Public Works staff. The project owner will also consult with Alameda and San Joaquin County, and City of Tracy staffs dealing traffic regulation enforcement, and the California Highway Patrol to develop measures intended to minimize speeding by construction-related vehicles. Specifically, the overall traffic control plan shall include the following:

- Verbal and written instructions to construction workers and related suppliers, intended to raise awareness of existing speeding problems on area roadways.
- The project owner will require the EPC and major subcontractors to develop and implement a construction employee carpool program;
- Through worker education and shift scheduling, maximize worker commute trips during off-peak hours (off-peak hours are (1) before 6:00 AM; (2) between 9:00 AM and 4:00 PM; and (3) after 6:00 PM);
- Schedule heavy vehicle equipment and building material deliveries as well as the movement of materials and equipment from laydown areas to occur during off-peak hours (off-peak hours are (1) before 6:00 AM; (2) between 9:00 AM and 4:00 PM; and (3) after 6:00 PM);

The construction traffic control and transportation demand management program shall also include the following restrictions on construction traffic addressing the following issues for linear facilities:

- Timing of water and gas pipeline construction (all pipeline construction affecting local roads shall take place outside the peak traffic periods to avoid traffic flow disruptions);
- Signing, lighting, and traffic control device placement;
- Temporary travel lane closures and potential need for flagmen;
- Maintaining access to adjacent residential and commercial properties; and
- Emergency access.

Verification: At least 30 days prior to start of site preparation or earth moving activities, the project owner shall provide to Alameda County and San Joaquin County, the City of Tracy, and the California Highway Patrol for review and comment, and to the CPM for review and approval, a copy of its construction traffic control plan and transportation demand management program. Additionally, every 4 months during construction the project owner shall submit turning movement studies for the intersections of (1) Midway Road at Grant Line Road; and (2) Altamont Pass Road at Grant Line Road.

TRANS-2 During construction the project owner shall comply with California Department of Transportation (Caltrans) and affected local jurisdictions on limitations on vehicle sizes and weights. In addition, the project owner or their contractor shall obtain necessary transportation permits from Caltrans and all relevant jurisdictions for roadway use.

Verification: In the Monthly Compliance Reports, the project owner shall submit copies of any oversize and overweight transportation permits received during that reporting period. In addition, the project owner shall retain copies of these permits and supporting documentation in its compliance file for at least six months after the start of commercial operation.

TRANS-3 The project owner shall comply with the California Department of Transportation (Caltrans) and local jurisdictional limitations for encroachment into

public rights-of-way and shall obtain necessary encroachment permits from Caltrans and all relevant jurisdictions.

Verification: In the Monthly Compliance Reports, the project owner shall submit copies of any encroachment permits received during that reporting period. In addition, the project owner shall retain copies of these permits and supporting documentation in its compliance file for at least six months after the start of commercial operation.

TRANS-4 The project owner shall ensure that all federal and state regulations for the transport of hazardous materials are complied with. The route for delivery of hazardous materials would be via I-580 to Midway Road and proceed south to the project site.

Verification: The project owner shall include in its Monthly Compliance Reports during construction and Annual Compliance Reports during operations copies of all permits and licenses acquired by the project owner and/or subcontractors concerning the transport of hazardous materials.

TRANS-5 The project owner shall submit a parking and staging plan for all phases of project construction to enforce a policy that all project-related parking occurs on-site or in designated off-site parking areas.

Verification: At least 60 days prior to start of site mobilization, the project owner shall submit the plan to Alameda and San Joaquin Counties, and the City of Tracy for review and comment, and to the CPM for review and approval. The material submitted to the CPM shall include the documentation of the Counties/City's review and comments.

TRANS-6 The project will require the installation *of* a 150-foot left-turn lane for northbound traffic, a 150-left-turn lane for southbound traffic, and a 150-foot right-turn deceleration lane on Midway Road at both the construction access intersection and the ultimate driveway location.

Verification: At least 60 days prior to the start of construction, and after review and approval by the Alameda County Public Works Agency, the project owner shall fund and install a 150-foot left-turn lane for northbound traffic, a 150-foot left-turn lane for southbound traffic, and a 150-foot right-turn deceleration lane on Midway Road at the construction access intersection. If the ultimate driveway location differs from the construction access intersection, the project owner shall fund and install a 150-foot left-turn lane for northbound traffic, a 150-foot left-turn lane for southbound traffic, and a 150-foot right turn deceleration lane on Midway Road at the ultimate driveway location.

TRANS-7 The project owner shall prepare a construction mitigation plan for all roads potentially affected by the pipeline construction. The plan should incorporate input from the Alameda County Public Works Agency, the San Joaquin County Public Works Department, and the City of Tracy Public Works Department. The intent of this plan is to insure that all impacted roads will be repaired and reconstructed to original or as near original condition as possible. This plan shall:

- Document any portions of roads that may be inadequate to accommodate oversize or large construction vehicles, and complete remediation measures are necessary;

- Provide appropriate bonding or other assurances to insure that any damage to a road due to construction activity will be remedied by the applicant;
- Relocate utility poles if necessary, to insure that adequate clear zones are established along the property frontage; and
- Reconstruct portions of roads that are affected by the installation of underground utilities.

Verification: At least 30 days prior to the start of site preparation or earth moving activities, the project owner shall submit a road mitigation plan to Alameda and San Joaquin Counties, and the City of Tracy for review and comment, and to the CPM for review and approval. The material submitted to the CPM shall include the documentation of the Counties/City's review and comments.

Prior to the start of site mobilization, the project owner shall photograph or videotape the potentially affected portions of Patterson Pass, Corral Hollow, Middle, San Jose, Grant Line, and Midway Roads, including intersections. The project owner shall provide Alameda and San Joaquin Counties, the City of Tracy, and the CPM with copies of these images or videotape.

TRANS-8 The HRSG stacks shall have all the lighting and marking required by the Federal Aviation Authority (FAA) so that the stacks do not create a hazard to air navigation.

Protocol: The project owner shall submit to the FAA Form 7460-1, Notice of proposed Construction or Alteration and supporting documents on how the project plans to comply with stack lighting and marking requirements imposed by the FAA.

Verification: At least 30 days prior to the start of construction, the project owner shall provide copies of the FAA Form 7460-1 with copies of the response to Form 7460-1, to the CPM and the Alameda County Public Works Agency.

TRANS-9 The construction phase of the TPP will generate construction worker traffic sufficient to result in traffic conditions that exceed adopted local intersection level of service standards. This is anticipated to occur during peak construction months at two locations: (1) Midway Road at Grant Line Road; and (2) Altamont Pass Road at Grant Line Road. The project owner will need to install temporary traffic signals at these intersections.

Verification: At least 30 days prior to the start of site preparation activities, plans for these temporary signals should be submitted to the Alameda County Public Works Department for review and comment, and to the CPM for review and approval. The material submitted to the CPM shall include the documentation of the County's review and comments.

REFERENCES

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Hand 2002a. Letter of Opposition-traffic. Submitted to CEC/Dockets on October 18, 2001.

Midway Power, LLC 2002a. Data Adequacy Responses for Tesla Power Project. Submitted to CEC/Dockets on January 2, 2002.

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